APPENDIX A

ABBREVIATED QAPP FORM

1. TITLE PAGE

_____
(Project Name)

_____
(Responsible Agency)

_____
(Date)

Project Manager Signature _____

Name/Date _____

Project QA Officer Signature _____

Name/Date _____

USEPA Project Manager Signature _____

Name/Date _____

USEPA QA Officer Signature _____

Name/Date _____

2. TABLE OF CONTENTS - List sections with page numbers, figures, tables, references and appendices (attach pages).

TABLE A-1 Continued.

3. DISTRIBUTION LIST - names and telephone numbers of those receiving copies of this QAPP. Attach additional page, if necessary.

i. _____

ii. _____

iii. _____

iv. _____

v. _____

vi. _____

vii. _____

viii. _____

ix. _____

x. _____

xi. _____

xii. _____

4. PROJECT/TASK ORGANIZATION - List key project personnel and their corresponding responsibilities. *Please note that an organizational diagram should be presented with this section.*

Name	Project Title
_____	Advisory Panel (contact)
_____	Project Manager/Principal Investigator

TABLE A-1 Continued.

_____ QA Officer

_____ Sample Design Coordinator

_____ Sample Design QC Officer

_____ Field/Sampling Leader

_____ Sampling QC Officer

_____ Laboratory Manager/Leader

_____ Laboratory QC Officer

_____ Data Processing Leader

_____ Data QC Officer

_____ Document Production Coordinator

_____ Reporting QC Officer

5. PROBLEM DEFINITION/BACKGROUND; PROBLEM/TASK DESCRIPTION -

A. Objective and Scope Statement

_____

_____

_____

_____

_____

B. Intended Usage of Data

_____

_____

_____

_____

_____

TABLE A-1 Continued.

C. General Overview of Project

D. Sampling Station Network Design/Rationale

E. Project Timetable

Activity	Initiation	Anticipated Date of Completion

TABLE A-1 Continued.

6. MEASUREMENT QUALITY OBJECTIVES

Parameter	Detection Limit	Estimated Accuracy	Accuracy Protocol*	Estimated Precision	Precision Protocol**

*Accuracy Protocol Formula - Percent recovery

**Precision Protocol Formulas -
If precision is to be calculated from two replicate samples, use Relative Percent Difference (RPD) calculated as

$$RPD = \frac{(C_1 - C_2) \times 100}{(C_1 + C_2) \div 2}$$

where C_1 = the larger of the two values and C_2 = the smaller of the two values. And, if it is to be calculated from three or more replicate samples, use Relative Standard Deviation (RSD) calculated as
where s = standard deviation and $\bar{x}$ = mean of replicate samples. The standard deviation or the

TABLE A-1 Continued.

$$RSD = \frac{s}{\bar{X}} \times 100$$

standard error of a sample mean (s) is calculated as

$$S = \sqrt{\sum_{i=1}^{n} \frac{(X_1 - \bar{X})^2}{n-1}}$$

where x_i = measured value of the replicate, $\bar{x}$ = mean of replicate sample measurements, n = number of replicates. Precision can also be expressed in terms of the range of measurement values.

B. Data Representativeness

C. Data Comparability

TABLE A-1 Continued.

D. Data Completeness

Parameter	No. Valid Samples Anticipated	No. Valid Samples Collected and Analyzed	Percent Complete

7. PROJECT NARRATIVE - Paragraph relating project to the Data Quality Objectives and problem definition.

8. SPECIAL TRAINING REQUIREMENTS AND CERTIFICATION -

Position Title Requirements Date of Training/Certification

TABLE A-1 Continued.

9. DOCUMENTATION AND RECORDS

10. SAMPLING PROCESS DESIGN/SAMPLING METHODS REQUIREMENTS

	Type of Sample/ Parameter	Sampling Gear/ Method (SOP No., if available)	Number of Samples	Sampling Frequency (Number per year)	Method of Analysis
Biological					
Physical					
Chemical					

B. Rationale for Selection of Sampling Sites

TABLE A-1 Continued.

11. SAMPLE HANDLING AND CUSTODY PROCEDURES

12. ANALYTICAL METHODS REQUIREMENTS

A. Sample processing procedures

B. Location of voucher collection

13. QUALITY CONTROL REQUIREMENTS

A. Field QC checks

B. Laboratory QC checks

TABLE A-1 Continued.

C. Data Analysis QC checks

14. INSTRUMENT/EQUIPMENT TESTING, INSPECTION, AND MAINTENANCE SCHEDULE

Item	Serial No.	Date of Last Examination

15. INSTRUMENT CALIBRATION AND FREQUENCY

16. INSPECTION/ACCEPTANCE REQUIREMENTS

TABLE A-1 Continued.

17. ACQUISITION OF NON-DIRECT MEASUREMENT DATA

18. DATA MANAGEMENT PROGRAM/SYSTEM

19. ASSESSMENT AND RESPONSE ACTIONS

20. REPORTING PLANS

21. DATA REVIEW AND VALIDATION REQUIREMENTS

TABLE A-1 Continued.

22. VALIDATION AND VERIFICATION

23. RECONCILIATION WITH DQOs